

**Remarks:**

Claims 14-26 were in the application as last examined. No amendments are made in the specification or in the claims. Applicants respectfully requests further examination and consideration in light of the following remarks.

**Rejections under 35 U.S.C. § 103**

Claims 14-17, 24, and 26 stand rejected by the Examiner under 35 U.S.C. §103(a) as being unpatentable over Pulaski (3,089,202) in view of Phelps (3,103,398). The rejection is respectfully traversed.

Pulaski teaches a foam-insulated door 2 hingedly mounted to a refrigerator cabinet 1 by a pin-and-cup type hinge comprising a pin or pintle 19 mounted to the cabinet and received within an opening defined by a cup or sleeve 21 in the door. The sleeve 21 and pintle 19 have cooperating hollow interiors that define a passageway between the door and cabinet. Electrical conductors 23 in the form of two insulated wires (see Figs. 2 and 3) extend through the passageway to provide electrical power from the cabinet to a butter conditioning compartment 5 in the door.

Phelps discloses leaf or hinge-plate type hinge connecting the doors 18 to a cabinet. The hinge comprises plates or leaves 36, 37, which are rotationally connected by a hinge pin. Nylon washers 48 and 49 electrically isolate the leaves 36, 37 and the pin 51 and leaf 36, respectively. An electrical connection is formed between the leaves 36, 37 by peening the pin 51 into a non-circular opening 45 and attaching a cap 53 to the upper leaf 36. The cap 53 includes a cup 56 that is biased onto the head 52 of the pin. Thus, the leaf 36 is electrical coupled to the leaf 37 through the cap 53 and the pin 51. Screws 34, 47 mount the leaves 36, 37 to the cabinet and door. Speaker wires 27, 61 are connected to the screws 34, 47 to permit the transfer of electrical signals from the speaker wire 27, screw 34, plate 36, cap 53, plate 37, screw 47, and then to speaker wire 61.

The combination of Pulaski and Phelps fails as there is no motivation, suggestion, or teaching to make the combination. The standards for a finding of obviousness must be strictly



adhered to. Simply citing one or more prior art references that illustrate different facets of the invention and then concluding that it would be obvious to combine the references to create the Applicant's invention is wholly inadequate. The Examiner must provide some rationale, articulation, or reasoned basis to explain why the references can be combined. However, rejections on obviousness ground cannot be made on mere conclusory statements.

It is respectfully submitted that the combination of Pulaski and Phelps is also based on a mischaracterization of the teachings of Pulaski. In the Office Action, the Examiner asserts that Pulaski discloses the invention as claimed but for the conductive plates, which is incorrect. Pulaski discloses a hinge having an internal passageway through the sleeve and hinge pin. Two conductors extend through the passageway. Pulaski does not disclose using the hinge itself as a conductor, much less the claimed invention but for the conductive hinge plates. The Examiner is erroneously ascribing to the sleeve and pin the function of being able to conduct electricity. This is not the case, as Pulaski teaches that it is the conductors which conduct electricity, and the conductors form no part of the hinge plates.

Furthermore, the Examiner's reason for making the combination is not relevant to the manner in which the combination is being made. In the Examiner's reasons for making the alleged combination, it is stated that, "It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the hinge of Phelps with the refrigerator of Pulaski such that no wire would be inserted through the electrical hinge, so that wear and tear by repeated flexing of conductor wire can be avoided." This reason by the Examiner mirrors the reason in Pulaski on why Pulaski provides a passageway through the hinge in which the conductor can pass without being subjected to the movement in response to the rotation of the hinge. This reason is logically related to Pulaski alone as Pulaski wants to pass a traditional wire conductor through the hinge. However, this reason is not logically related to Phelps, which does not use a conductor extending through the hinge, but instead uses the hinge as the conductor. Phelps does not need to be concerned with the hinge movement effects on the conductor because Phelps has no conductor passing through the hinge. In short, the stated reason for the combination is nothing more than the benefit of Pulaski and is not a



basis for combining the references as it is irrelevant to Phelps. Therefore, the stated reason does not provide the necessary teaching or suggestion to make the combination.

The stated reason, in fact, would teach away from combining Phelps with Pulaski as Phelps does not support the stated reason. Pulaski and Phelps also teach against making the combination as asserted because they teach antithetical concepts and are therefore not combinable. According to §2145 of the MPEP, "It is improper to combine references where the references teach away from their combination." Pulaski teaches a hinge enabling limited movement of a pair of lead-in conductors passing through the hinge and damage to the conductors is prevented by providing a through passage in the hinge for the conductors such that the conductors don't rotate with the hinge. The hinge taught by Phelps teaches using the hinge as an electrical connector that connects a conductor in a door and in the cabinet, without passing a conductor through a passage in the hinge. Thus, Pulaski and Phelps teach totally different methods for conducting an electrical signal between a cabinet and door using a hinge. One provides a hinge passage for the conductor and the other uses the hinge as an electrical connector.. These two concepts cannot be reconciled with each other and, therefore, the combination of Pulaski and Phelps is improper and fails accordingly.

Moreover, the combination as suggested in the Office Action would change the operating principle of Pulaski. As stated in § 2143.01 of the MPEP, "If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious." The MPEP cites *In re Ratti*, 270 F.2d 810 (CCPA 1959) in support of this statement. In *Ratti*, the Court reversed a rejection based on a combination of references, wherein the primary reference teaches a rigid seal with a sheet metal reinforcing member and the secondary references teaches a gasket with resilient spring fingers. The rejection suggested replacing the reinforcing member with the resilient spring fingers, but the Court held "that the combination of [the references] is not a proper ground for rejection of the claims here on appeal. This suggested combination of references would require a substantial reconstruction and redesign of the elements shown in [the primary



reference] as well as *a change in the basic principles under which the [primary reference] construction was designed to operate.*” *In re Ratti*, at 813 (emphasis added). Pulaski operates on the principle of a hinge having a lead-in conductor extending through an internal passage. Phelps operates on the principle of a wireless hinge. To replace the hinge of Pulaski with the wireless hinge of Phelps destroys the wired principle of Pulaski. The combination cannot be sustained because it changes to operating principle of Pulaski.

Assuming, *arguendo*, that the combination of Pulaski and Phelps is tenable, the rejection is still improper as the combination of Pulaski and Phelps does not reach the Applicant’s claimed invention. Contrary to the Examiner’s assertion, no combination of the teachings of Pulaski and Phelps would result in replacing the hinge of Pulaski with the hinge of Phelps. Instead, if the door of Pulaski were combined with the hinge of Phelps, the combination would result in forming a passageway in the hinge pin and pulling the conductor through the passageway. Alternatively, the conductor could be passed through the openings in the sleeves.

In contrast, claim 14 requires that a hinge for a refrigerator comprise an electrically conductive first hinge plate mounted to a refrigerator cabinet and electrically coupled to a first conductor connected to a source of electricity, an electrically conductive second hinge plate mounted to a refrigerator door and electrically coupled to a second conductor that supplies power to a user device on the door, wherein the first and second hinge plates are electrically coupled to define an electrically conductive path from the first conductor to the first hinge plate to the second hinge plate to the second conductor to supply power from the source of electricity to the user device. In other words, the hinge of claim 14 serves as the conductor. The combination of Pulaski and Phelps would not teach a refrigerator cabinet and door connected by a hinge as called for in claim 14, namely, a hinge with electrical coupled plates, with one of the plates connected to the conductor in the refrigerator door and the other plate connected to the conductor in the refrigeration cabinet. The combination would teach passing the conductor through a passage in the door. Therefore, claim 14 is non-obvious over the combination as the combination is missing an entire element of claim 14.



Claims 15-17, 24, and 26 are also patentable over Pulaski and Phelps based on their direct dependency on claim 14.

Claims 18-20 and 25 stand rejected by the Examiner under 35 U.S.C. §103(a) as being unpatentable over Pulaski '202 and Phelps '398 as applied to the claims above, and further in view of Mills (2,778,000). The rejection is respectfully traversed.

The Examiner suggests that the invention of claims 18-20 and 25 would be obvious in view of a combination of Pulaski and Phelps as applied to claims above, and further in view of Mills.

There is no teaching or suggestion in Mills of using a hinge as a conductor. Mills teaches a hinge 12 comprising a hinge butt 13 and a hinge leaf 14 formed of a material which is a relatively poor conductor. Various elements such as pins and bolts inserted through the hinge 12 form a conductive path, which is connected on each side of the hinge 12 to one of a pair of conductors 67, 72. As discussed previously, a hinge having a passageway through which conductive elements extend and conduct electricity is not a hinge acting as a conductor. As the hinge of Mills conducts no electricity, Mills does not remedy the shortcomings of underlying combination of Pulaski and Phelps with as applied to the claims above. Therefore, claims 18-20 and 25 are patentable over Pulaski and Phelps for the same reasons as claim 14 based on their direct or indirect dependency on claim 14.

Claims 21-23 stand rejected by the Examiner under 35 U.S.C. §103(a) as being unpatentable over Pulaski '202 and Phelps '398 as applied to claims above, and further in view of Hoffman et al. (3,955,044). The rejection is respectfully traversed.

The combination of Pulaski and Phelps with Hoffman is improper in that Hoffman is non-analogous art. Hoffman and Applicants' claimed invention are only similar to the extent that they both have electrically conductive elements. This single similarity is not sufficient to place Hoffman in the same field of endeavor as Applicants' invention. Applicants' claimed invention relates to a refrigeration appliance having a compartment closed by a door which has electrically operated devices mounted thereon. In contrast, Hoffman relates to a crimped



corrosion proof terminal for crimping onto solid or stranded aluminum wire. Applicants' invention and Hoffman are not related to the same field of endeavor. Refrigeration appliances and terminals for aluminum wire are not the same field of endeavor.

Applicants' invention and Hoffman also address different problems. Applicants' invention addresses the problem of providing a device enabling simple and correct electrical connection of user device positioned on a refrigerator door, while also enabling the door mounting direction to be easily reversed. Hoffman, on the other hand, is directed to the problem of preventing a number of issues associated with copper-aluminum terminations, such as oxidation of aluminum upon exposure to the air, creep or cold flow, and electrolytic or galvanic corrosion.

Therefore, since Hoffman is not within the same field of endeavor as Applicants' invention and is not directed to the same problem as Applicants' invention, Hoffman is non-analogous art with respect to Applicants' claimed invention. Since Hoffman is non-analogous art, the rejection, which is based on a combination of Hoffman with various other references, fails in light of the non-analogous nature of Hoffman.

In addition, as there is no teaching or suggestion in Hoffman of an electrical conduit comprising the hinge plates of a hinge, Hoffman does not remedy the shortcomings of underlying combination of Pulaski and Phelps with respect to the claims above. Therefore, claims 21-23 are patentable over Pulaski and Phelps for the same reasons as claim 14 based on their direct or indirect dependency on claim 14.

Applicants respectfully submit that the claims in their current form are allowable over the prior art of record and request early notification of allowability. If there are any questions regarding this matter, please contact the undersigned attorney.



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Respectfully submitted,

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